

LISTING OF THE CLAIMS:

The following listing replaces all prior versions of the claims:

1. (Previously presented) A method for recording microscopic images with high optical resolution of particles or organisms suspended in a liquid contained in a flow cuvette, comprising introducing the suspension into a flow cuvette, and recording the image of the suspension by an optical sensor, wherein the optical sensor and flow cuvette are moving relative to one another while the contents of the flow cuvette are imaged; and said sensor is moving along the flow cuvette.

2-4. (Canceled)

5. (Previously presented) The method according to claim 1 further comprising allowing the particles to sink onto the ground of flow cuvette or into a region above the ground, wherein only part of the flow cuvette contains the particles or organisms to be examined, imaging the ground or the region above with a high optical resolution, and covering the ground or the region above by the optical sensor.

6. (Previously presented) The method according to claim 1 further comprising allowing the particles to rise to an upper limiting surface of the flow cuvette or into a region below the upper limiting surface, wherein only part of the flow cuvette contains the particles or organisms to be examined, imaging the upper limiting surface or the region below with a high optical resolution, and covering the upper limiting surface or the region below by the optical sensor.

7. (Previously presented) The method according to claim 5, wherein said sinking or rising of the objects within the flow cuvette can be effected by one or more of the following: biological techniques, physical techniques, chemical techniques, sedimentation, and buoyancy.
8. (Previously presented) The method according to claim 1, further comprising providing transmitted light illumination, wherein a light source is situated on one side of the flow cuvette, and the optical sensor and an objective sensor are located on the opposite side of the flow cuvette.
9. (Previously presented) The method according to claim 1 further comprising providing incident light illumination by situating a light source, an objective, and the optical sensor on the same side of the flow cuvette.
10. (Previously presented) The method according to claim 8, wherein the transmitted light illumination is bright field illumination.
11. (Previously presented) The method according to claim 8, wherein the transmitted light illumination is dark field illumination.
12. (Previously presented) The method according to claim 8, wherein the transmitted light illumination is phase contrast illumination.

13. (Previously presented) The method according to claim 9, wherein the incident light illumination is fluorescence illumination.

14. (Previously presented) The method according to claim 9, further comprising illuminating the objects in the flow cuvette with a defined spectral intensity distribution of the incident light by a suitable light source or the insertion of one or more suitable filters.

15. (Previously presented) The method according to claim 9 further comprising illuminating the optical sensor with a defined spectral intensity distribution of the incident light by a suitable light source or the insertion of one or more suitable filters enables the optical sensor to be illuminated with a defined spectral intensity distribution of the incident light.

16. (Previously presented) The method according to claim 8, wherein the illumination is one or more of the following: bright field, dark field, and phase contrast illumination.

17. (Previously presented) The method according to claim 1, further comprising admixing the suspension with stains prior to the introducing step.

18. (Previously presented) The method according to claim 14, further comprising changing the one or more filters automatically or manually.

19. (Canceled)

20. (Previously presented) A device for recording microscopic images with high optical resolution of particles or organisms suspended in a liquid, wherein the suspension is introduced in a flow cuvette, and the image is recorded by an optical sensor, and further wherein the optical sensor and flow cuvette are movable along the flow cuvette and the contents of the measuring cell can be imaged.

21. (Previously presented) The device according to claim 20, wherein a light source is situated on one side of the flow cuvette, and an objective sensor and the optical sensor are located on the other, opposite side of the measuring cell.

22. (Previously presented) The device according to claim 20 wherein a light source is situated on the same side of the flow cuvette as an objective sensor, and the optical sensor.

23. (Canceled)

24. (Canceled)

25. (Previously presented) The method according the claim 8, further comprising providing a screen and lens system on the same side of the flow cuvette as the light source.

26. (Previously presented) The method of claim 8 wherein the screen and lens system is a condenser.

27. (Previously presented) The method of claim 9, wherein the illumination is fluorescence illumination, spectral intensity distribution of the incident light, or a combination thereof.